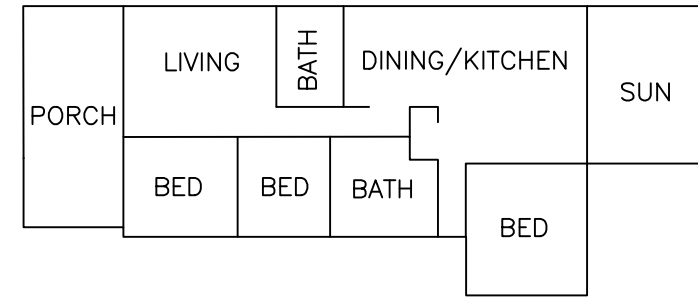


VICINITY MAP
NO SCALE

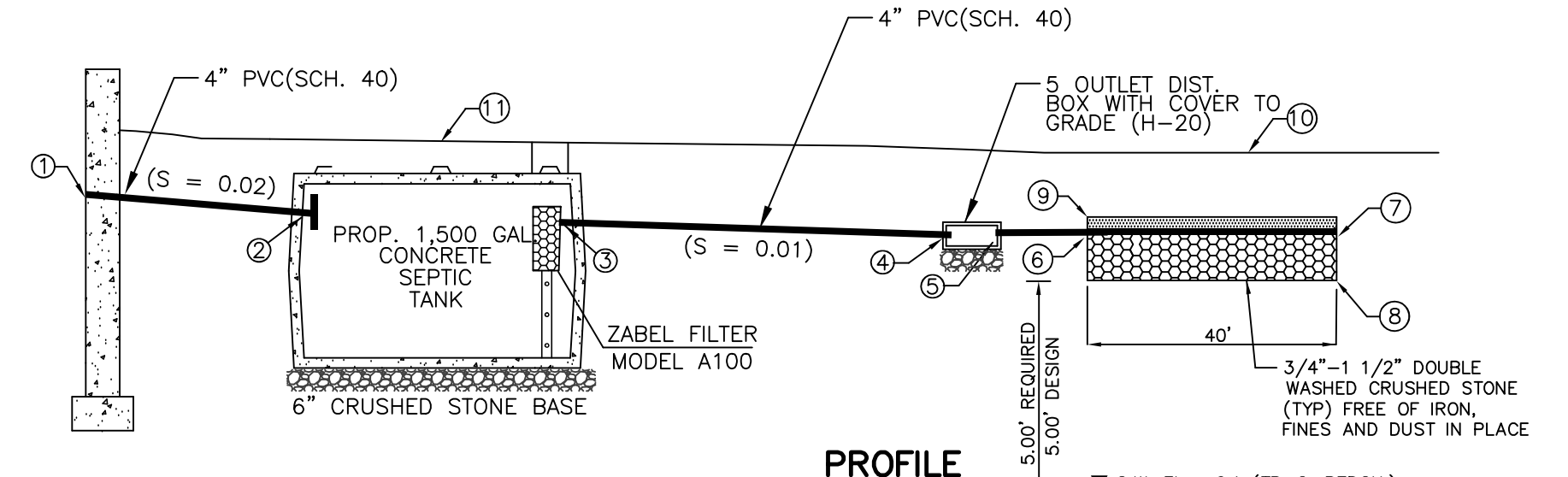
SOIL TEST DATA

SOIL TESTING AND EVALUATION BY: PAUL GUNN, SE#14392
SOIL TESTING WITNESSED BY: RALPH H. COLE, P.L.S.
DATE: APRIL 22, 2021 DURING A.M. HIGH TIDE

TP-1	APPROX. GRADE EL. 9.8	TP-2	APPROX. GRADE EL. 8.4
EL. 9.5	A HORIZON LOAMY SAND LOVR 3/2	EL. 8.0	FILL
EL. -0.2	C HORIZON FINE SAND 2.5Y 5/2	EL. 7.6	C1 HORIZON FINE SAND 2.5Y 5/5
		EL. -1.6	C2 HORIZON FINE SAND 2.5Y 5/2
WEAVING OBSERVED: NONE MOTTLING OBSERVED: 102" PERC. RATE: <2 MPI @ 16-34" ESHW: 102" (EL. 1.3)		WEAVING OBSERVED: NONE MOTTLING OBSERVED: 100" PERC. RATE: <2 MPI @ 16-34" ESHW: 100" (EL. 0.1)	



FLOOR PLAN
NOT TO SCALE



PROFILE
NOT TO SCALE
SCHEDULE OF ELEVATIONS

1. PIPE INV. AT FOUNDATION = 8.7± (INSTALLER TO VERIFY)	7. INV. OF PIPE AT END OF LEACHING BED = 5.60
2. INV. OF PIPE AT SEPTIC TANK INLET = 6.79	8. BOTTOM OF CRUSHED STONE OF LEACHING BED = 5.10
3. INV. OF PIPE AT SEPTIC TANK OUTLET = 6.54	9. TOP OF PEASTONE (BREAKOUT) OF LEACHING BED = 6.30
4. INV. OF PIPE AT DIST. BOX INLET = 6.02	10. FINISHED GRADE OVER LEACHING BED = 7.8 (MIN.) - 9.3 (MAX.)
5. INV. OF PIPE AT DIST. BOX OUTLET = 5.85	11. FINISHED GRADE OVER SEPTIC TANK = 8.5 (MIN.) - 10.8 (MAX.)
6. INV. OF PIPE AT START OF LEACHING BED = 5.80	

GENERAL NOTES

- SEPTIC SYSTEM INSTALLATION CONTRACTORS SHALL BE LICENSED BY THE BOARD OF HEALTH AND MUST COMPLY WITH ALL REQUIREMENTS OF THE BOARD OF HEALTH DISPOSAL WORKS CONSTRUCTION PERMIT AND ANY CONDITIONS, IF ISSUED BY THE CONSERVATION COMMISSION.
- ALL CONSTRUCTION MUST COMPLY WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE 310 CMR 15 & THE ANY LOCAL BOARD OF HEALTH SUPPLEMENTAL REGULATIONS.
- THERE SHALL BE NO CHANGES MADE IN THIS PLAN WITHOUT THE WRITTEN PERMISSION OF THE BOARD OF HEALTH AND DESIGN ENGINEER.
- ANY CHANGE IN SITE CONDITIONS, DISCREPANCIES, ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF MORSE ENGINEERING PRIOR TO THE COMMENCEMENT OF WORK.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH TITLE 5 (310 CMR 15) AND THE LOCAL BOARD OF HEALTH REQUIREMENTS TO THE FULLEST EXTENT PRACTICABLE. NO GUARANTEE TO THE SYSTEMS PERFORMANCE IS EXPRESSED OR IMPLIED.
- SOIL TEST DATA SHOWN IS LIMITED TO THE CONDITIONS EXISTING AT THE SUBJECT TEST PIT LOCATION ONLY. IF DIFFERENT SOIL CONDITIONS ARE FOUND IN THE AREA OF THE PROPOSED SOIL ABSORPTION SYSTEM THEY SHALL BE BROUGHT TO THE ATTENTION OF MORSE ENGINEERING IMMEDIATELY.
- THE CONTRACTOR SHALL NOTIFY DISSAFE PRIOR TO ANY EXCAVATION AT THE SUBJECT PROPERTY. IT IS SPECIFICALLY CAUTIONED THAT THE SUBSURFACE UTILITIES SHOWN ARE APPROXIMATE ONLY AND HAVE BEEN COMPILED FROM AVAILABLE RECORDS AND OBSERVABLE SITE FEATURES. UTILITIES OTHER THAN THOSE SHOWN MAY BE PRESENT AT THIS LOCATION.
- THIS PLAN HAS BEEN PREPARED SPECIFICALLY AS A SEPTIC SYSTEM DESIGN AND IS NOT TO BE USED TO ESTABLISH PROPERTY LINES OR BUILDING SETBACKS. PROPERTY LINES AND BUILDING LOCATIONS ARE GRAPHIC ONLY, PROPERTY LINES NOT HAVING BEEN VERIFIED. NO REPRESENTATION OR CERTIFICATION AS TO THE ACCURACY OF THOSE SHOWN IS IMPLIED.
- CONTRACTOR TO VERIFY AND ENSURE THAT ALL INTERIOR PLUMBING IS DIRECTED INTO PROPOSED SEPTIC SYSTEM. ANY VARIATIONS FROM THE DESIGN AS SHOWN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.

CONSTRUCTION NOTES

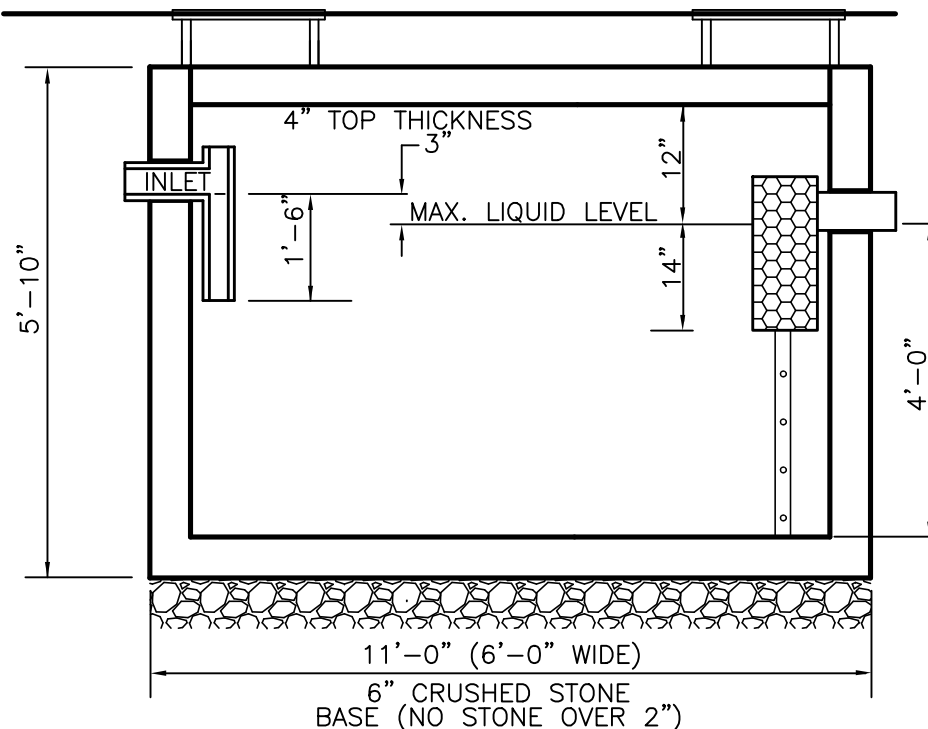
- CONTRACTOR SHALL COORDINATE INSPECTION TIMES WITH THE LOCAL BOARD OF HEALTH AND DESIGN ENGINEER 24-HOURS IN ADVANCE OF THE FOLLOWING INSPECTIONS:
 - AFTER EXCAVATION OF ALL UNSUITABLE MATERIAL FROM SOIL ABSORPTION AREA.
 - PRIOR TO COVERING THE CONSTRUCTED SYSTEM.
 - AFTER SYSTEM BACKFILL AND FINAL GRADING.
- ALL CONSTRUCTION MUST COMPLY WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE 310 CMR 15 & THE ANY LOCAL BOARD OF HEALTH SUPPLEMENTAL REGULATIONS.
- ALL TIGHT-JOINT PLUMBING SHALL BE CONSTRUCTED OF SCH. 40 PVC PIPE WITH CLEANED AND CEMENTED FITTINGS, UNLESS OTHERWISE NOTED.
- ALL PRECAST/PIPE CONSTRUCTION JOINTS AND FITTINGS SHALL BE MADE WATERTIGHT BY PARGING WITH HYDRAULIC CEMENT.
- THE CONTRACTOR SHALL PROVIDE A SIEVE ANALYSIS OF THE TITLE 5 PERC SAND UTILIZED FOR FILL TO VERIFY THAT IT MEETS THE REQUIREMENTS OF 310 CMR 15.255(3). TITLE 5 SAND FILL SHALL COMPLY WITH THE FOLLOWING:

SIEVE SIZE	PARTICLE SIZE
#4	4.75 mm
#50	0.30 mm
#100	0.15 mm
#200	0.075 mm
- THE CONTRACTOR SHALL PREVENT ANY HEAVY CONSTRUCTION MACHINERY AND/OR TRUCKS FROM DRIVING OVER THE PROPOSED SOIL ABSORPTION SYSTEM LOCATION UNTIL FINISHED GRADE IS ESTABLISHED.
- THE CONTRACTOR SHALL INSTALL MAGNETIC TAPE OVER SYSTEM PIPING & COMPONENTS
- THE DESIGN ENGINEER SHALL CERTIFY AND PREPARE AN "AS-BUILT" PLAN FOR SUBMITTAL TO THE BOARD OF HEALTH UPON SEPTIC SYSTEM COMPLETION.
- ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" LOAM & SEED POST CONSTRUCTION.
- ALL SEPTIC SYSTEM COMPONENTS TO BE STAKED OUT BY PROFESSIONAL LAND SURVEYOR PRIOR TO SYSTEM INSTALLATION.
- CONTRACTOR SHALL ABANDON EXISTING SEPTIC COMPONENTS IN ACCORDANCE WITH 310 CMR SEC. 15.354 OF TITLE 5 AND LOCAL REGULATIONS BY PUMPING DRY, CRUSHING AND ABANDONING

SITE NOTES

- LOCUS DOES NOT LIE WITHIN A DEP DESIGNATED ZONE II OR ZONE A RESOURCE AREA.
- ALL KNOWN WETLANDS WITHIN 100 FEET OF THE PROPOSED SEWAGE SYSTEM ARE SHOWN.
- PROPERTY LINE DATA WAS OBTAINED FROM RECORDED DEED (LC#74793) AND RECORDED PLANS ON FILE AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS.
- THERE WERE NO ACTIVE/POTABLE WELLS OBSERVED WITHIN 100' OF THE PROPOSED SYSTEM.
- LOCUS LIES IN FEMA ZONE "AE" (EL. 13) AS SHOWN ON FEMA COMMUNITY MAP PANEL 25021C 0139K DATED NOVEMBER 4, 2016. ZONE "AE" IS A SPECIAL FLOOD HAZARD AREA.

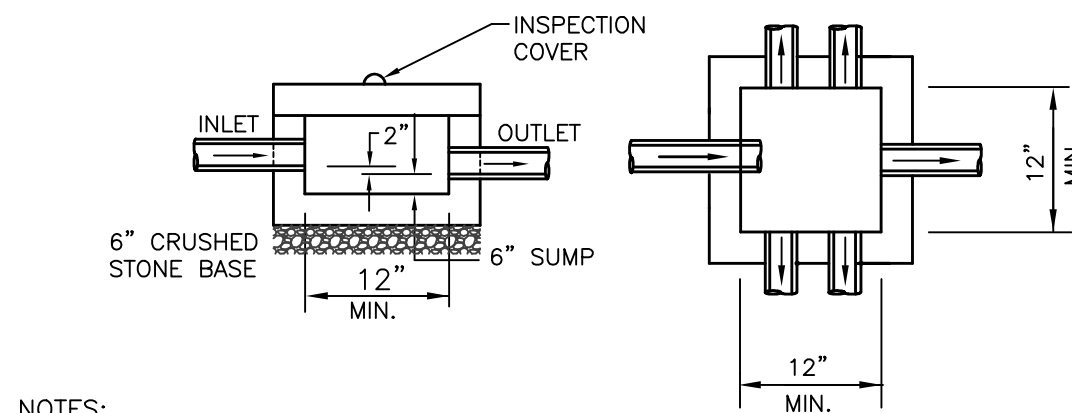
1,500 GAL. SEPTIC TANK (MONOLITHIC) DETAIL



NOTES:

- THE SEPTIC TANK INLET AND OUTLET COVER SHALL BE EXTENDED TO FINISHED GRADE AND EQUIPPED WITH BOLT DOWN CAST IRON COVERS.
- ALL PIPE CONNECTION AND CONSTRUCTION JOINTS SHALL BE SEALED WITH HYDRAULIC CEMENT.
- SEPTIC TANK SHALL BE INSTALLED ON A LEVEL 6" CRUSHED STONE BASE.
- OUTLET SHALL BE EQUIPPED WITH A ZABEL A100 EFFLUENT FILTER (OR APPROVED EQUAL).
- TANK SHALL BE WATERPROOFED TO PREVENT GROUNDWATER OR SURFACE WATER INFILTRATION.

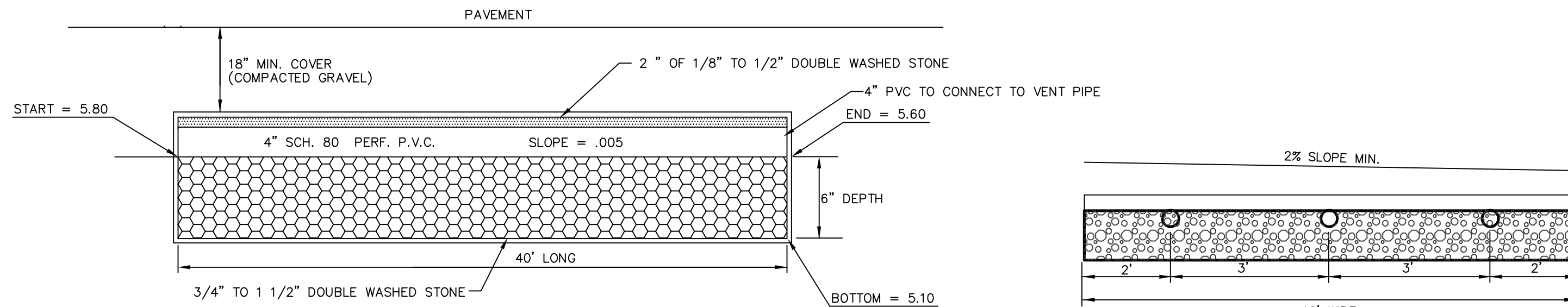
5-OUTLET (H-20) DISTRIBUTION BOX



NOTES:

- DISTRIBUTION BOX COVER SHALL BE EQUIPPED WITH RISERS AS NECESSARY TO BRING THE COVER TO GRADE AND WITH BOLT DOWN CAST IRON COVERS.
- ALL PIPE CONNECTION AND CONSTRUCTION JOINTS SHALL BE SEALED WITH HYDRAULIC CEMENT.
- DISTRIBUTION BOX TO BE INSTALLED ON A LEVEL 6" CRUSHED STONE BASE.

LEACHING BED FACILITY



DESIGN DATA

- BUILDING TYPE: SINGLE FAMILY DWELLING
- NO. OF BEDROOMS: 3
- DESIGN FLOW: 3 x 110 GPD/BEDROOM = 330 GPD (GALLONS PER DAY)
- DESIGN PERCOLATION RATE: <2 MPI (TP-1 & 2)
- CARBAGE DISPOSAL: NO
- SEPTIC TANK DESIGN REQUIREMENT: 200% DESIGN FLOW
330 x 2 = 660 GAL. (PROVIDE NEW 1,500 GAL. SEPTIC TANK)
- LEACH AREA REQUIREMENTS GALLONS/SQ. FT.
BOTTOM: 0.74 GAL./S.F. SIDE: 0.74 GAL./S.F.
- TOTAL LEACH AREA REQUIRED:
TITLE 5: 330 GPD / (0.74 GPD/S.F.) = 446 S.F.
PROVIDED: 10' x 40' STONE INFILTRATION LEACHING FIELD (10.3% SIZE REDUCTION)
CAPACITY = 400 S.F. x 0.74 GPD/S.F. = 296 GPD

LOCAL UPGRADE APPROVAL REQUESTS

- 310 CMR 15.405(a): TO ALLOW A REDUCTION FROM 10' (REQ'D) TO 5' (MIN.) BETWEEN SAS & PROPERTY LINES.
- 310 CMR 15.405(b): TO ALLOW A REDUCTION FROM 10' (REQ'D) TO 2.5' (MIN.) BETWEEN SAS & CRAWLSPACE.
- 310 CMR 15.405(c): TO ALLOW A REDUCTION OF 10.3% IN THE SIZE OF THE SAS (UP TO 25% ALLOWABLE).

